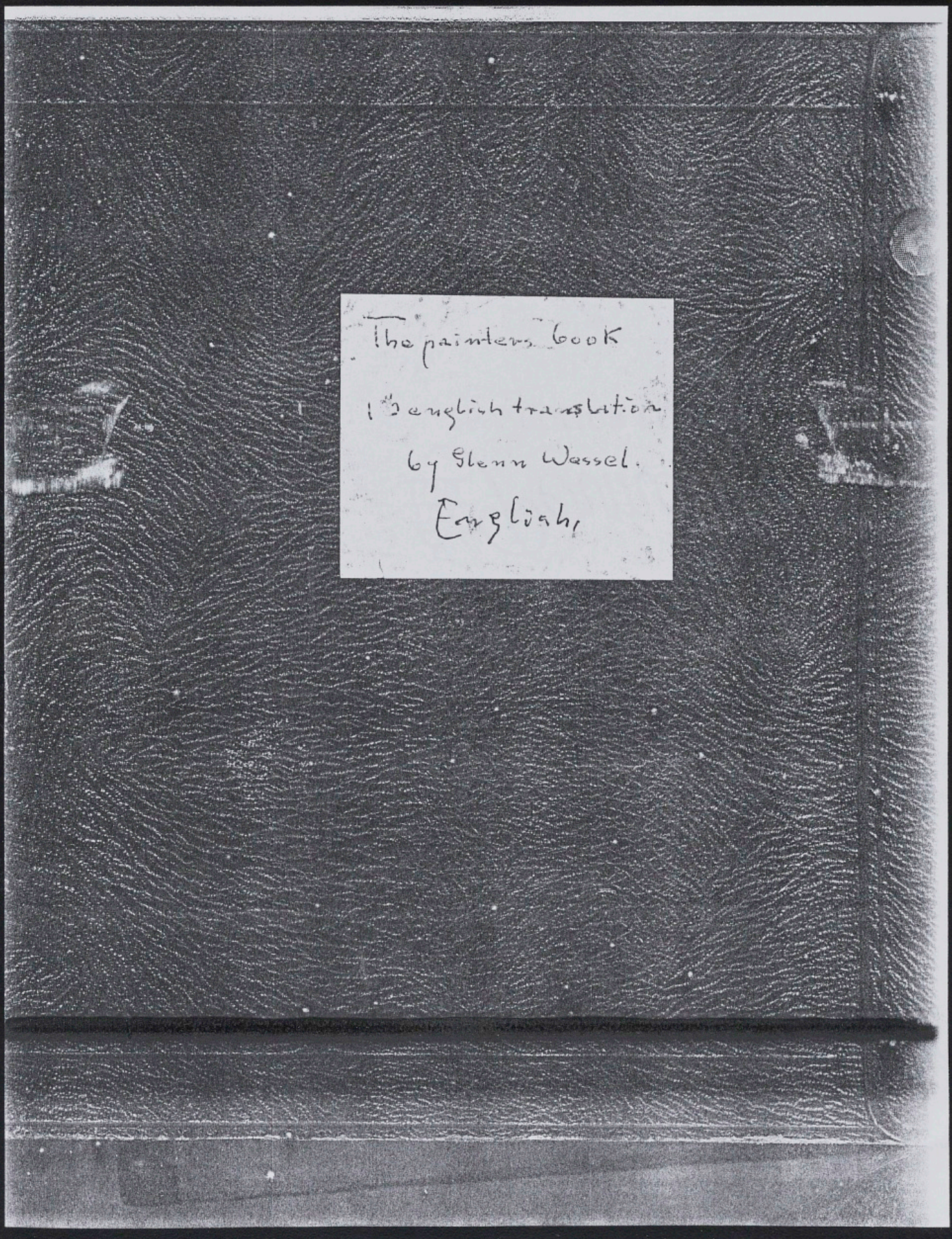
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Creation in Form and Color.
The plastic Interpretation of nature in relation
to the picture-plane.

~~CREATION IN FORM AND COLOR~~

A Textbook for Instruction in Art

by

Hans Hofmann

First Part Form

With 64 Figures and Eight Reproductions

Translated from the German into English

by Glenn A. Wessels

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* meditation, reflection,

CREATION IN FORM AND COLOR

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A.

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The plastic experience

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P R E F A C E

The forthcoming book contains
artistic knowledge
which has been developed in the spirit of my
school (grounded 1915),
in the course of my own artistic work
and in the spirit of our times.

The book falls into two parts.

Part One deals with:

the free play of form in
floating space; speaking
briefly about form

Part two

with color in its relation to
the free play of form; in
short, with color.

Both parts postulate:

that in nature, form,
color and texture
are simultaneously co-existent always,
and that nature
operates upon us first in the form of appearance

so for us

form only exists through color
and color only exists through form,

and thus the picture operates upon our
senses at once -- through color, form and
texture as an appearance.

Introduction

"ART"

Der Kunstäußerung ist eine Weltanschauungs-
Bekenntnis.

Art

All true productivity ~~fixes~~ finds realization upon an artistic and scientific basis simultaneously. For that reason, in the end, creative science is art and creative art is science.

With the recognition of the Theory of Relativity by Einstein, the fourth dimension has come into natural science. The first and second dimension include the world of appearance, the third holds reality within it, the fourth dimension is the realm of the spirit and imagination, and thus of feeling and sensibility. All cultural interests are, in their final analysis, filled with the urge to give content and substance to life. All profound content in life originates from the highest phenomenon of the soul; that is, from intuition. Intuition infers the fourth dimension. Art realizes this dimension with the help of the other dimensions.

SECTION I

PHILOSOPHIC PART

A.

THE PLASTIC EXPERIENCE

UNLIMITED NATURE

CHAPTER I

The World as Unity in Reality, Actuality and Appearance.
The creative process bases upon the capacity for conscious experiencing.
The capacity of experiencing relies upon actuality for its material.
We master the actuality by the power of our senses.
Actuality is opened to us first through color and form.
Everything shaped possesses form and this formation engages us optically as appearance.
Actuality is three dimensional,
Appearance is two dimensional.
Appearance "operates" upon us three dimensionally, nevertheless.
This leads to the difference between:
Actuality and Appearance, and between
Appearance and Effect.
Upon this differentiation rests our capacity for experiencing.
The world opens itself to us as a unity in actuality and appearance and out of this develops our imagination of the world.
This knowledge leads in the further consideration of the artistic process of formal creation, to a further difference between <u>"the conception of experience"</u> and the <u>"realizing of experiences"</u>

The conception of experience is founded upon perception. Perception rests upon actuality and upon appearance. Perception is limited, imagination is unlimited. The spirit is free.

The formal realization of experiences is founded upon the essential nature of the expression medium.

We transpose the impulse received from reality (the natural world) and amplified by our capacity for conscious experience into the particular and legitimate order of the expression medium.

The realization of our imaginings pictorially, upon a picture plane requires, then, a further developed conception of the laws of the picture plane, because the effect of the pictorial-presentative-elements rests upon these laws.

The formal creation does not declare itself to us in the presentative elements, however; rather, <u>exclusively</u> in their total effect,

which the formation elements express as mental entities, when they are brought to a ringing, vibrating responsiveness.

CHAPTER II

The plastic interpretation of nature.

Tri-partate Space, The Space-trinity.

We must differentiate in the process of formal creation:

1. Between the Construction in Nature --
through the conception of which we achieve our imaginal material, and

2. Between the realization of this imaginal material upon a picture plane which presupposes the conception of the principles of the picture plane.

Nature discloses itself to our imagination thru tri-partate space.

We differentiate:

positive space

and

negative space

Space manifests itself through Volumes --

The "Object" is a positive volume.

The "Empty space" is a negative volume.

Thus we come to a further differentiation:

between the Space in the Object

the Space in front of the Object

the Space behind the Object.

Upon these differentiations our Space conception is based and upon their basis we speak further about tri-partate space.

CHAPTER III

The "Object" as "positive" space.

The "Empty space" as "negative Volume".

The conception of Emptiness, of "holes" or openings,
"of unfilled space",
consequently "empty space",
as negative form
is necessary
to the balance of positive form,
which is filled space, and
thus is the Object.

The Unity of Space:

Unfilled space
and objectively filled space
together yield space-unity --
for unfilled space: emptiness
possesses in the same way
three dimensional Effect,
as does the filled space --
as does the world of objects,
and the sum of all three dimensional elements yields
together the two-dimensionality
"ful-filled" space.
in which Nature, through Appearance
affects us optically.

CHAPTER IV

Space in the condition of poise and fulfillment

In the vibrating fulfillment
of tri-partate space
all volumes are poised (or three dimensionally balanced),
the positive Volumes as Objects,
the negative volumes as Emptinesses
in front of and behind the Objects.

CHAPTER V

The Appearance

The appearance is the expression
of a completely comprehended three-dimensionality.
The sum of this three dimensional comprehension
is the two dimensionality
in which appearance affects us optically.
"We see two dimensionally."

CHAPTER VI

Appearance and Picture Plane

The appearance and picture plane
are essentially identical.
The essential of appearance is two dimensionality,
the essential of the picture plane is likewise two dimensionality.
The picture plane is, when in a still untouched condition,
completely closed two dimensionally.
Thru the process of formal creation the essential of the
picture plane--its two dimensionality--becomes affected
but not destroyed.

CHAPTER VII

Formal Creation

The essential of the picture plane
will not be altered when the air space--the unfilled space--
is conceived of as real volumes, as well as the Objects.

CHAPTER VIII

The first principle in the interprotation of nature.

The unfilled space--
the emptiness--
must, like the objective filled space, be
understood as volume.

CHAPTER IX

The first law in formal creation upon a picture plane.

The essential of the plane affected by the
process of formal creation may not be destroyed.
The essential of the picture plane is two-dimensionality.

CHAPTER X

The first principle in the interpretation of appearance.

Appearance in its plastic meaning must be interpreted as three dimensional relaity.
This leads us to the plastic experience received when confronted by nature.

CHAPTER XI

The physical laws prior to, and limiting the process of formal creation.

Every act of formal creation first originates in an experience in contact with nature equally, whether the artist works directly before nature, or in looser contact with it (from memory or imagination).

CHAPTER XII

The Essential of every experience.

Every experience is a space experience, and thus coincidentally a time experience.

CHAPTER XIII

The realization of experiences through the process of formal creation.

The process of formal creation as such is unthinkable without direct dependence upon the world of nature.
Each act of formal creation is bound up with the material world.
The material in which formal creation takes place is the medium of expression.
The artist has to transmute his plastic experience with nature into an organization, parallel within the nature of the medium of expression--
in this transmutation process, for him the artistic ecstasy exists.
The realization of the artists ecstasy is the formal creation.

CHAPTER XIV

The medium of expression.

The medium of expression manifests its nature through its essential qualities.
The nature and the essential quality of the expression medium admit exploration only through the limiting principles which are proper to the nature of that medium of expression.

CHAPTER XV

Formal creation upon a picture plane

When we present form upon a picture plane
we affect its two-dimensionality
and thus its essential quality is affected,
as every formal creation upon it is constituted
by means of a partition of the picture plane.
Through the partition of the picture plane
the phenomenon of spacial illusion appears,
and this illusion must correspond to the shape intention
which has conditioned the act of partitioning the picture plane.
The intention itself leads back again to the experience
received from nature.
If, however, the experience received from nature does
not at one and the same time comprehend the
objective, filled space and the empty, unfilled space
in reciprocal three-dimensional conditionality
as space unity,
the essential two-dimensionality of the picture
plane will be destroyed through the
partitioning process of formal creation.
Such formation does not only negate the
architectonic wall, but at the same time
the architectonic space which it should
embellish.
It brings about, in effect, holes in the
wall and parts of the picture push out
as illusion, from the two dimensionality
of the picture plane into the real,
three dimensional space.

PHILOSOPHIC PART

B

OUR VISUAL PROCESS

OBSERVATION AND EMPATHY

THE OPTICAL EXPERIENCE

APPEARANCE

CHAPTER I

The spiritual interpretation of our visual process.

The dualism of the two and three dimensional.

The mystery of formal pictorial creation arises
in the dualism of the two and three dimensional.

"Things are other than they appear".

Reality is three-dimensional.

Appearance is two-dimensional.

The concepts two-dimensional and three-dimensional
are involved in the concepts, reality and appearance.

We see the reality only, through the appearance
but the appearance affects us as reality.

Spacial nature appears other than it really is--
but we must experience it as it really is.

We differentiate thus, not only between reality and appearance but as well, between appearance and effect.

The visual process is dependent on appearance--the process of experiencing is dependent upon the effect of appearance.

The appearance is, likewise, something entirely different than the effect which results from it. We will, in our later investigations, recognize also that the effect resulting from a formal creation has nothing else in common with the presentative-elements which have produced this effect.

Spacial nature is not two-dimensional, it only appears two-dimensional, and appearance is not three-dimensional but has only a three-dimensional <u>effect</u>.

And so the presentative-elements do not in themselves possess the effect which they manifest through the mental content of the presentation.

The presentative-elements are only the
carriers of super-sensory effects.
The effects are only accessible by means of
empathic penetration ("feeling into"),
and thus every act of seeing requires also an
act of experiencing.
This is of fundamental meaning to formal creation.

CHAPTER II

Observation and Empathic Penetration

If observation is not based upon empathic
penetration ("feeling into"), then this
observation leads to spiritless imitation.

It is possible that a thing may appear small and still
have a very great effect, and vice versa it is
possible that a real thing may be very large and
still appear small.

The mountain in the background does not lose its
effect of greatness for our whole ~~experience-~~ sensibility
~~capability~~, in spite of the fact that it appears
smaller, perhaps, than the garden fence in the
foreground, which may, in the appearance, seem
large against the mountain.

In the pictorial presentation however, the mountain which is drawn small, corresponding to the appearance held by the eye, has a size effect in the picture not necessarily larger than that of the garden fence which is actually drawn larger in the foreground. The mountain so drawn or painted does not only appear smaller in the pictorial presentation than does the garden fence, but the wrong effect (of smallness) resulting from the unexplored and insufficiently experienced appearance, becomes considerably exaggerated.

"Effects potentialize themselves" in the frame of the presentation.
That which amounts only to a bit of a millimeter in the two-dimensional fixation of appearance, may under certain circumstances in pictorial presentation have infinite effect.
Hereon rests the effect of every formal creation.

Chapter III

The experience of actuality

We master reality by means of our senses.
All ideas of things and the world originate in sensory experience.
The sense experience can not be based upon observation alone. Then, if things are other than they seem and if nevertheless, appearance effects in us completely concrete ideas of things and the world which can "come alive", this implies that our sensibilities operate as insight (inner seeing).
This implies however, what we possess, over and above sensory ability, the gift of empathic penetration.

CHAPTER IV

Our senses.

Nature has wisely limited the scope of our senses. For only by means of sense limitation do the sense impressions become mentally conceivable to us, and thus become experience.

CHAPTER V

Our ability for empathic comprehension.

By means of the ability to comprehend empathically our sense experiences become bound up into insight. Thus we can conceive and explore the essential of the thing, over and above the bare sense experience. "Empathic comprehension is the spiritual power of the spirit to ~~penetrate~~ pervasion."

The physical eye sees only the shell and appearance but the inner eye penetrates the thing to the kernel.

CHAPTER VI

The being of things.

Things express, in their relations and connections, effects upon us which are for us no longer real, but rather supersensory and thus are of a transcendental, supersensory nature.

The sense organs react only to the particular character and quality of things, but through our insight we conceive the coherence of things and thus is the being of the thing mentally conceivable to us.

CHAPTER VII

General summary of the foregoing considerations

We may now sum up our thoughts to this point by saying:
the dualism,
two and three dimensional,
or reality and appearance
and
appearance and effect,
are chiefly mastered in the process of pictorial configuration by means of observation and empathic comprehension and penetration.

Observation and empathy govern the sense of space and thus govern nature in its volumnar construction--of objective, filled space, and the empty unfilled negative space.

PHILOSOPHIC PART

C

THE MIND IN THE ACT OF FORMAL CREATION

CHAPTER I

The ~~spiritual~~ mental interpretation of our visual process.

"The Visual Experience."

At the bottom of formal creation every act of visual experience, particularly when it is given effect pictorially, is an experience based upon observation and empathy.

The visual experience always premises a sense-experience, and thus sense experience becomes a visual experience only by means of empathy.

If the sense experience is not accompanied by an empathic process, then the sense experience is dispelled as a mere sensation.

The artistic process of formal creation, however, is always concerned with conscious feeling and sensing.

Observation is, then, the sense experience basic to the empathic process and empathy is the soul's process of comprehension of sense experience.

Observation and empathy stand as causes to the ~~spiritual~~ mental comprehension of our visual sensations and thus our visual experience results.

CHAPTER II

The fundamentals of our visual process: two-dimensionality.

Our visual process always seizes upon only the
appearance of the thing--
whether it is concerned with reality itself
or a formal creation.
"We see two-dimensionally."
If our visual process were not two-dimensionally
orientated we could never take a picture
--a painted plane--
as an illusion of three dimensions.
If reality did not also possess appearance,
then reality would remain closed to our visual
experience in spite of the fact that we possess eyes.
Appearance is the optical form of reality and
as such is only approachable through observation.
Reality also affects us in other ways, however.

CHAPTER III

The range of our senses--and thus, our sensibilities.

Our capability to experience does not limit itself only by the visual process.
Through the visual process alone we could not achieve clear mental images of the world in which we live and so we could not comprehend the world in its totality as a whole.
The other forms in which reality affects us, are, on the other hand, only approachable by other senses quite as limited.
Reality, then, affects our feelings through very different sense organs.
Moreover our sense-experiences and thus our sensations are throughout, different in kind.
Our tactile-experience is, for example, thoroughly three-dimensional.
The differentiation of sense-experience develops in us the sense of space.
The space-sense is the sense of senses:
We hear, see, smell and touch space.
Even with our sense of taste, space-sensations are related.
Without space-sense our sense perceptions would be altogether incomplete--the senses complete themselves in the space-sense.
Space sense dominates our whole imaginal-ability.

CHAPTER IV

Tri-partate space and its functions.

Space exists as a reality outside of us.
Space affects us by means of appearance
and lives as imagination within us.

All our imaginal material is of spacial nature.

CHAPTER V

Our capacity for imagination.

Our capacity for imagination borders upon the wonderful.
The suggestive power of the word and the
concepts which are bound up with the words can,
without anything further and apparently without
the least expenditure of mental force,
awaken every imagination within us.
Think of your father--imagine your mother--
the mental image called awake answers immediately
with the summoned picture.
Similarly, the visual experience immediately
awakes the mental image of three-dimensional
actuality, apparently without the least expen-
diture of mental energy.
Perception is limited.
Imagination is unlimited.

CHAPTER VI

The unification of nature through subjective feelings.

By means of the space-experience we are aware of Nature as being a living unification--fulfilled in functional vibrations and tensions; in the manner which the whole and the part enliven and activate each other.

Things are never isolated to us.
They lead no single existence outside the laws of their frame.
They are locked together for us in the optical form of appearance to a unity of visual experience.
However, if our senses were not limited, then we could never possess the mental image of space--for each space-image premises a limiting border.
Our visual process is a two-dimensional synthesis without which we must lose ourselves in particular things.
If our sense impression, then, were not comprehended in the space sense, we would never mentally grasp the unity of the single thing as a whole, or as a single thing.
We could not experience wholeness.

CHAPTER VII

The mental comprehension of sense-impressions.

The mental comprehension of sense-impressions produces living experience.
Formal creation is based upon living experience.
It is necessary that we limit our visual process still further to avoid losing ourselves in the chaos of appearance.

CHAPTER VIII

The Field of Vision

The field of vision is decided by the physical borders of our eyes, and again further limited through the physical constitution of our eyes.
Without the limitation by means of the visual field, we could never be able to arrive at a mental confirmation relative to the visual process.
The limitation of observation is requisite to the mental comprehension of the visual experience.
Without limitation by the field of vision we could not fix locality in the visual picture, and thus would not be in the position to comprehend a relation or connection and confirm it.
We are, then, able to make mental confirmations only by means of the comprehension of relations and connections.

CHAPTER IX

The mental realization.

The mental comprehension of relations and connections is ~~presumed for~~ prerequisite to image-construction as such, and ~~for~~ particularly to the comprehension of a real or imaginal whole in particular.

All is at once a unity in itself and a single part in relation to the whole. All things are limited in themselves and yet bound together in the whole. The continuity of being postulates the limitation of being.

Through the partition of being it becomes accessible to the senses as having particular qualities and is accessible in its unification to our empathic powers. Thus everything in the cosmos of living matter and events is approachable by means of our ability to comprehend empathically, through the order and laws which are peculiar to each part of reality and which express the particular qualities essential to this particular part of reality.

Through our life experience the outer event is bound up with our inner world, and thus the spirit may, by means of the law and order of our inner world again affect the outer world through its lawful interrelation with this inner world of the mind and spirit.

We are bound in an orderly way with the outer event through our world of feeling and sensation which in

the end is ~~given out~~ expressed by us as something ~~spiritual~~ mental.
Thus is everything real to us bound in a living manner
to the image of the world,
connected vitally to the image of the world,
as it is mirrored in our soul and spirit and
as it finally finds its expression in the
work of art through formal creation.
If we hold the fact firmly,
that spacial nature appears differently when it
really is and that the effect which comes
from a formal creation has nothing else in
common with the elements which present it,
we come to the affirmation,
that each act of formal creation, by means of
the ~~spiritual in the~~ mental part of this act of formal creation,
roots in a sense-illusion and exchange.
"Art is a lie", says Picasso.
From this we derive very essential knowledge,
which is obviously fundamental to the act of formal
creation upon a picture plane.
We must differentiate:
(1) between the visual space, and the imaginal
space and
(2) further, between formal space and ~~spiritual~~ mental space
which the formal elements give out as effect.
Visual space is a two-dimensionally closed space.
Imaginal space, is, intellectually, unlimited.
To visual space and imaginal space reality is
opposed as actually three-dimensional.

Formal space is space postulated by the essentials of the picture plane, in which our three dimensional images become lead back and comprehended upon the basis of the two dimensional limitations of our observation.

The space of the presentation elements is two-dimensional--

Mental ~~Intellectual~~ space operates three-dimensionally in the formal creation.

Intellectual space is a relative space, based upon the feeling for tensions and functions and therewith the sensibility for power and movement, for timbre and color, for life and rhythm.

In formal creative construction, then, there are three things which limit the ~~spiritual~~ mental issue:

(1) Actuality, which becomes living experience only through sensory experience and the empathic powers,

(2) Medium of expression, the nature and possibilities of which open themselves only by means of the sensitivity due to our empathic abilities,

(3) the strength of our feelings and life of our senses, by means of which we analyse nature as well as the medium of expression.

Each formal creative construction has thus to ~~oppose~~ relate itself to the experience of reality by means of exploration of appearance,

which affects us only as a visual experience and further; to the presentational elements and the super-real effects which they manifest when they are brought in relation to each other by means of ~~intellectual~~ mental connections.

The presentational elements must as such disappear behind the effect which they produce--

the presentation elements must then, give over their real meaning in favor of a higher spiritual effect, without however, being totally lost.

That is: the presentation elements must hold a spiritual meaning upon the basis of their real meaning.

We may express the law of formal creation: thus, the basis of every plastic formal creation is:

(1) Nature as living experience

(2) The medium of expression as living experience

We can go a step further immediately, by affirming:

"The artistic experience exists in the transposition of the impulse which nature gives to us as experience, into the legitimate order of the expression medium."

We shall come to understand in our further research that the expression medium--as well as nature--is animated when we master its order of life spiritually.

CHAPTER X

Summary relating to the mental in the process of formal creation

Only a vitalized presentation is art.
In the vitalized presentation the spiritual quality of the artist comes to expression--which is previously determined by his feeling for nature and his imaginal capabilities, and further in his feeling for materials or sensitivity to the medium of expression in which he creates.

The formal creative process pre-requisites then, the highest ability to experience--
that is, sensitivity, intuition,--that is, spiritual inspiration and further spiritual and manual discipline.
The effect of the work of art thus depends first upon a sensitive feeling for nature, and further upon pictorial feeling through which the feeling for nature is realized.
We now have to find out wherein nature is animated and further wherein the medium of expression is capable of animation or vitalization.

PHILOSOPHIC PART

D

NATURE AS ANIMATED

(Empathic Penetration)

CHAPTER I

The Space-experience

The space experience rests upon the spiritual concept of the vital, living inter-connection of all things.
Space is filled with tensions,
formal tensions, light and color tensions.
Space oscillates and resonates.
We differentiate the life-filled form
and the space pervaded with forces.
The form manifests itself to us as animated
in its surface tensions--which are not present
unless at the same time the negative space tensions
of the empty unfilled space also enter the appearance
as effect.
The experience of space comes about through the
conscious feeling of the impulse which nature emits,
and thus manifests the life-quality of the subject.

CHAPTER II

Static and dynamics

Nature affects us on one hand
as static, inherently quiet
on the other hand; as dynamically vitalized.

The concepts static and dynamic are reciprocal
concepts; something as the correlates:

Cause -- effect
basis -- consequence
Mountain -- valley

Static and dynamic may not be realized perhaps,
in the presentation; rather they are postulates.
When static is not the resultant of function
then a condition which is stiff and life-less comes about.
This condition is not actually static, either.
(New-realism). If the dynamic moment does not operate
upon the basis of the static moment or if the
dynamic moment does not, further, struggle against
the static condition then an inquietness comes about--
then the dynamic operates in an exaggerated way and is
exalted carelessly, at the cost of the true expression.
(Expressionism)

CHAPTER III

Life

Life manifests itself in the tension of force-pervaded space and in the surface tensions of the life-filled form.
Positive space is: nothing else than a manifestation of life.
And in fact;
when life swells, then the form also swells
and with it the space in which the form lives
~~and~~ When life goes, then form also comes to an end
and the space is benumbed.

The fruit ripens to bursting in superfluity of life
and then withers~~.~~
when life is cut off by the command of natural law.
Life fulfills in a frame the whole of a function~~.~~
Through the function, movements become released
and the movements generate tensions~~.~~
the tensions of power-pervaded space and
the tensions of life-filled form.
Tension is always the expression of power--
and this power is life.

CHAPTER IV

The function--a life manifestation

The function is the product of reciprocal static and dynamic moments.
This reciprocal action is not perceived by our mentality analytically but is perceived directly as a synthesis--
This synthesis is the function.

With the concept of the functional we touch directly upon the play of forces in which, on its part, nature moves above the level of mere sense impression, (with the mediation, however, of sense impression) directly or indirectly it affects our feelings and therewith our life in feeling and sensibility.
The play of forces leads us into the realm of movements and oscillations, swings and vibrations, with which nature is ~~fulfilled~~ pervaded beyond all measure--for each life manifestation expresses itself upon the basis of movements and oscillations.--
Movement and oscillation are the expression of the power which is life.

CHAPTER V

Energy
~~Force~~, movement, rhythm, tension.

Movement, rhythm and tension--
are the effects of functions by which the single thing is bound with the whole.
Every manifestation of life necessarily begets movement, which on its part simultaneously releases an opposing movement.
In this simultaneity of movements and opposite movements, nature manifests to us upon one hand the rhythm of all things, and on the other hand the ~~forces~~ energies causing the rhythm, for through movements and opposing movements, tensions come into being, which we have defined as surface-tensions of the life-filled form and as tensions in the ~~force~~ energy-pervaded space in which the life-filled form exists as a vibrating, living thing.
Tensions are therewith the sum of all effectual ~~forces~~ energies--
while the movement and counter-movement manifest the living rhythm in which things in their deeper sense are approachable by our knowledge.

CHAPTER VI

Summary

Static and dynamic are postulates of the function--
in the function all rhythms and movements are melted
together in a movement-emission.
No matter whether we are dealing with nature itself,
or with a plastic, pictorial presentation,
each function expresses itself spacially and
thus also expresses the movement-process bound up with it.
Space exists only in movement, therefore in impulses
through which nature manifests the subject as a living one.
Nature communicates to the subject:
by means of force and movement-manifestations;
through functions and tensions; and
through the intervals of light, in colors and
timbres and in this manner nature manifests the
rhythm of life in the subject.

SECTION II

~~60a~~
67

Technical Part

Reality: Its Static Construction

The Plastic Stimulus Received from Nature

(Experience)

Real Space, Complexes, Volumes, Masses

Planes and Lines

(Silhouette)

CHAPTER I

The first law of form-creation

"Expression through volumes"

A volume must lack no element of form and the volume should give no evidence of hypertrophy at the expense of surrounding space for, according to the law of balance, "one thing changes at the cost of another."

If the positive configuration is exaggerated, then the negative form suffers, and vice versa.

If the positive shape is too meager then it becomes compressed by the negative shape which has not been included in the concept of the artist.

The negative shape belongs to the positive shape as the shadow to the body.

THE PLANE

Difference between Planes and Volumes

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~~63~~
64

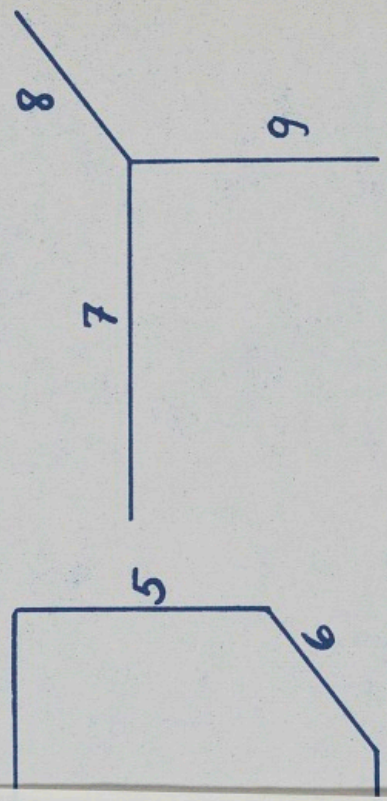

Fig. I

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CHAPTER II

Difference between volume and plane.

A volume possesses three dimensions:
height, breadth, and depth.
The plane possesses only two dimensions:
heighth and breadth.
Each body appears simultaneously, by means of
its mass, as volume and by means of its
silhouette, as plane.
Here it must not be forgotten that the silhouette
is always the effect of mass or of planes.

CHAPTER III

Identity of: natural image--eye axis--optical sensation and picture plane.

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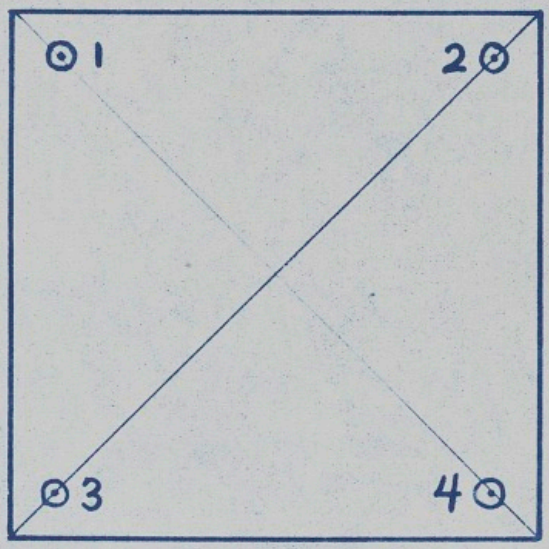

Fig II

Fig III

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for Chapter IV.

Identity of the: Natural or objective model--eye axis-- and picture plane. The planes parallel with the eye axis.

The plane is in parallel relation with the eye axis when the points 1, 2, 3, 4, are equidistant in their relation to the eye axis.

The planes which are in parallel relation with the eye axis in nature come to expression in the presentation through parallelity with the picture plane (the given format)

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~~66~~
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CHAPTER IV

THE ROTATING PLANE

~~66~~
~~67~~
68

CHAPTER IV

The rotating plane

Planes which are not parallel with our eye axis, whether upon a picture plane or belonging to reality, present a rotating system to our sensibilities.
They are dynamically enlivened.
However, this is not to say that a plane parallel with our eye axis may not also be dynamically enlivened or that a multitude of planes which stand parallel to our eye axis may not at the same time present a dynamic system to us in themselves.

When planes rotate, only the horizontal borderlines in the field of vision vary.
The horizontal borderlines give up their parallel relation to their horizontal axis only under certain circumstances.
The vertical borderlines never vary except in very particular and unusual circumstances.
Rotation is a special effect and therefore with rotation, a spacial relation is always simultaneously expressed.

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The Rotating Plane.

Die ~~Rotierende~~ Fläche.

Fig. IV

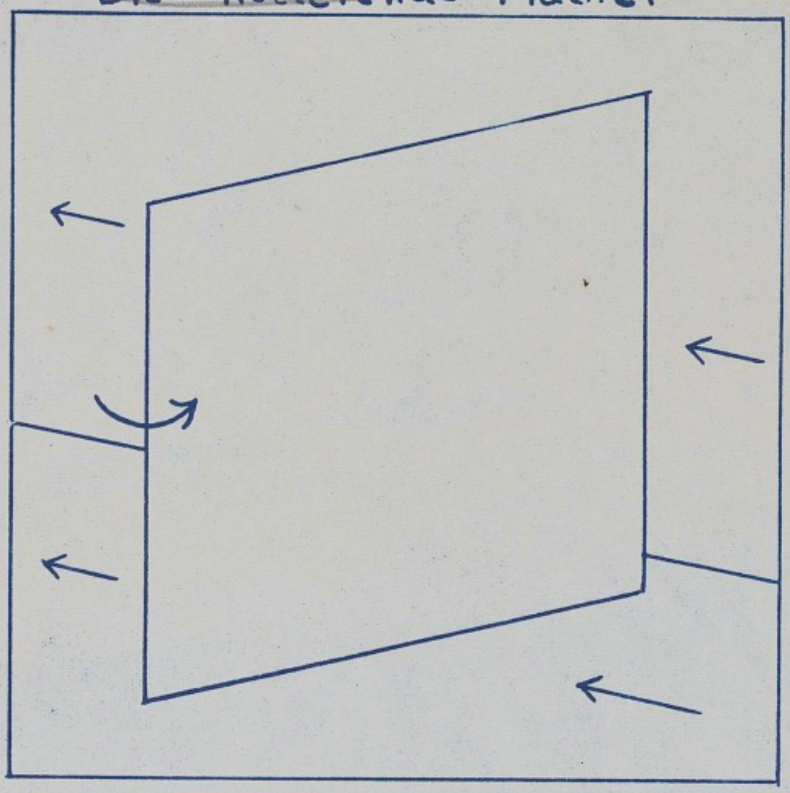
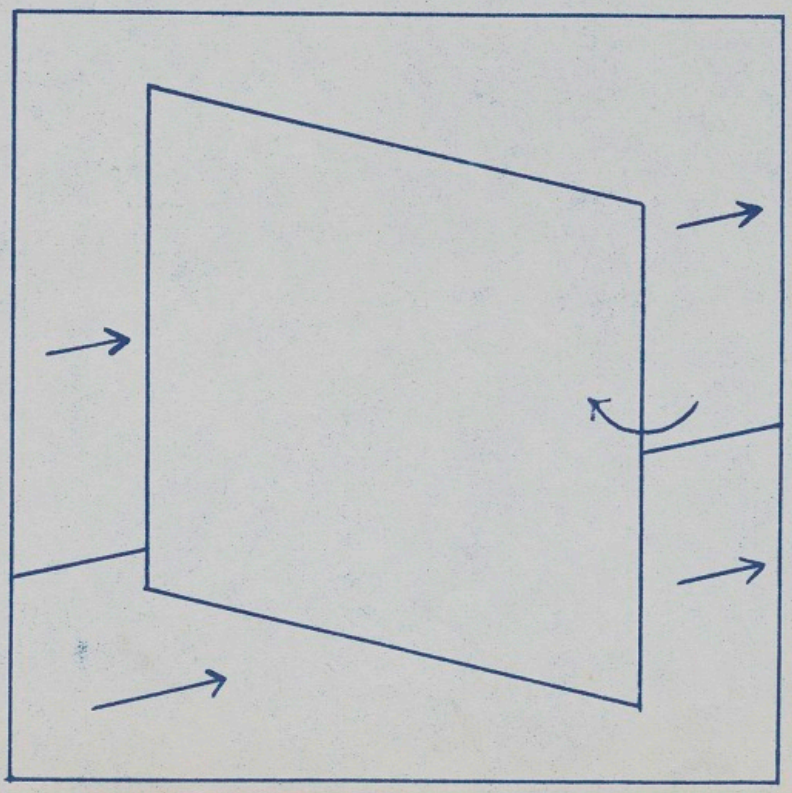


Fig. V



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CHAPTER V

Static planes--tipping planes

Simply by means of variation of the vertical borderlines. Horizontals do not change their direction.

CHAPTER VI

The most complicated rotation system in its most delicate differentiation of its special effects can be felt and ascertained by means of comparison of the horizontal axes to each other, and the vertical axes to each other. The borderlines adapt themselves according to the axes.

CHAPTER ~~X~~ VI

The Plane

We differentiate very few basic planes;
the circle, the triangle, the square, the parallelogram, etc.
All the most complicated planes lead back to these simple geometric figures. The essential quality of the plane is two-dimensionality.
Besides, the essence of a plane lies in this, that one may always mentally find a horizontal and vertical axis, whether the plane is simple or very complicated in form.

If one "thinks" such horizontal and vertical axes, into each plane, then one may establish the spacial effect of a plane within a plane-ensemble without going any further, because one compares the spacial course of the vertical axes, one to another, and similarly, the course of the horizontal axes.
In this way the Spacial effect of a plane within the group of a plane-ensemble is communicated most exactly to the feelings, and so also is the mutual interconnection of a system of relations communicated.

Chap. VII

The Most Complicated Planes always possess only one imaginary horizontal and one imaginary vertical direction axis.

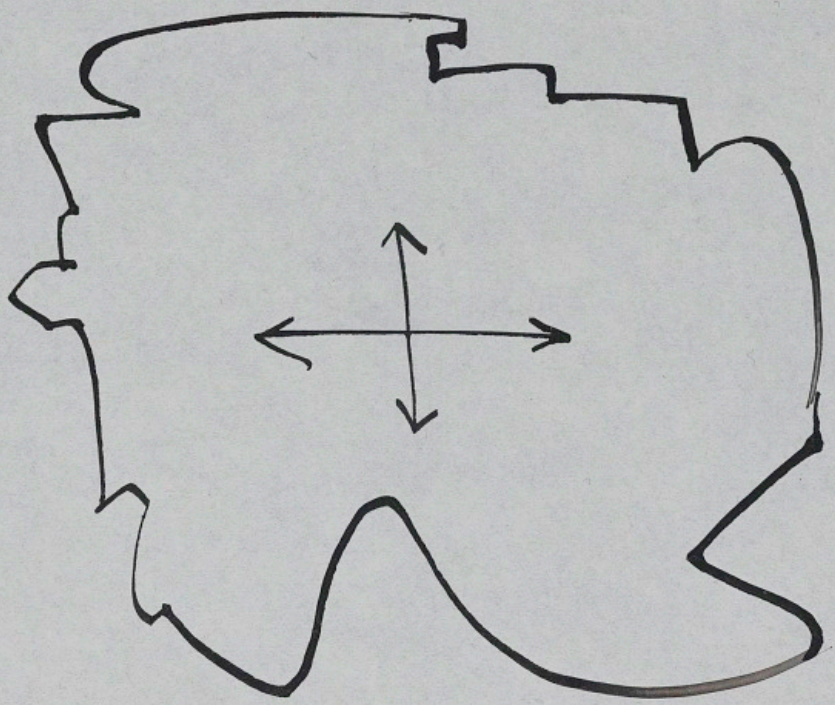

Fig. VIII

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74

CHAPTER ~~XI~~ VIII

The bent plane

The bent plane engenders, through its complicated spacial course, not only a multiplicity of subordinate smaller planes, rather, also a multiplicity of bodies upon the same volume.
The widely different bodies possess positive (+) and negative (-) space effect--since bodies cannot exist if there is not also emptiness.

This is of fundamental importance to formal creation.

THE VOLUME

~~73~~ 75 76

CHAPTER ~~XII~~ IX

The Volume as positive Space and as negative Space

Volume--Color--Light

In the volumnar conception there is, really, no "hole" space or empty space.

"all is body"

and thus, all is volume--even the empty spaces which are transparent volumes.

The difference between positive and negative volume is mainly that the first are "solid bodies" and the last "transparent" bodies.

Here we already touch upon the realization of color, for from here the form problem opens directly into the color problem:

"that which lies deep in space as form, must, by means of the advancing power of color oscillations be brought forward again into the two-dimensionally poised quality of formal pictorial creation and that which lies as form in the first plane of space, must be brought to expression by means of the heaviness-effect of color, so that the balance of the picture plane is not destroyed.

Those parts of a picture too heavily painted fall out of the picture plane exactly as parts of form conceived too heavily, and thus this painted part disturbs also the unity of light, which should be the highest of color--

for only the highest degree of light-unity is identical with the absolute two-dimensionality; with the appearance and with the two-dimensional quality of the picture plane.

~~75~~
~~76~~
77

CHAPTER ~~XIII~~ X

The essen~~tial~~ce of volume

The essential of volume is

mass,

the sphere, the cylinder, the pyramid, the cube, the cone, etc.

All complicated forms more or less are composed of these volumes.

The simplest volume for research purposes and the one most easily approached is the cube.

One may move about a volume and touch and examine it from all sides or may rotate the volume about its dynamic axes, and examine and touch it in this manner.

Because of the fact that the volume is approachable by means of different senses we have learned to conceive of it as three-dimensional,

From this conception arises our plastic experience.

CHAPTER ~~XIV~~ XI

The volume in reality and in the pictorial presentation

Pictorial presentation deals not only with understanding volume as tri-dimensional in relation to appearance (and thus in relation to our visual process), but it further deals with presenting volume in relation to the two dimensionality of the picture plane, in such a way that in the presentation it again affects us as plastic and three-dimensional, just as the reality in appearance declares itself to us as plastic.
The presentation therefore, is based upon a plastic experience of actuality and upon the plastic interpretation of the medium of presentation, (rather than upon copying appearance)

XII

CHAPTER ~~XI~~

The volume as positive space, that is as object.
The extraordinarily few possibilities for rotation of volumes themselves; the dynamic axes of volumes.

A volume possesses only a vertical and a horizontal axis of rotation or revolution.
These dynamic axes of rotation should not be confused with the gravitation axis, with which they are sometimes, but not always identical.
One can rotate a single cube forward, backward and from side to side only.
All remaining rotations of volumes are only combinations of the two fundamental rotations--but out of this arises further, all possibilities of movement, which the volume in relation to another volume in space may execute.

CHAPTER ~~XVI~~ XIII

The dependence of the spacial flow of the outline upon the two rotation-axes of the volumes. (Silhouette)

The outline of the volume changes its direction only in certain parts of its flow, namely, in those parts which lie parallel to the axes of rotation which undergo a direction-change.

CHAPTER ~~XVII~~ XIV

The rotation of volume in relation to appearance.

The volumes rotate in the frame of appearance in the sense of opposition to their horizontal and vertical rotation axes. From this the impression of movement arises.
Only the impression is pictorially fixable, not the actual movement.

The possibilities of the spacial effect of the volume are, in contrast to the few possibilities of rotation of volumes themselves, almost unlimited, but all these possibilities of movement lead back to the few rotation possibilities of the volume itself.

~~84~~
~~81~~
82

CHAPTER ~~XVIII~~ XV

HOW THE VOLUME MAY BE SEEN FROM THE STANDPOINT OF THE OBSERVER

~~85~~
~~82~~
83

for Chapter V.

How volumes may be seen.

One may see a volume from above and from below or parallel to himself.
And one may see a large group of volumes in the same manner and the volumes within this group may be seen partly from over, partly from under and parallel or left and right to a point of relation.

The volumes may, besides, be seen as having many planes or only as exhibiting one plane.
If the volume is seen as showing only one plane, no difference between volume and plane exists to the observer and in this case it depends entirely upon the intellectual interpretation whether the plane gives the meaning of a plane or of a volume.

CHAPTER ~~XIX~~ XVI

THE POSITIVE, OBJECTIVE, FILLED SPACE.

HOW THE VOLUME ITSELF IS APPROACHABLE BY EXPERIENCE.

~~87~~
~~84~~
85

to CHAPTER ~~XIX~~ XVI

The volume as mass

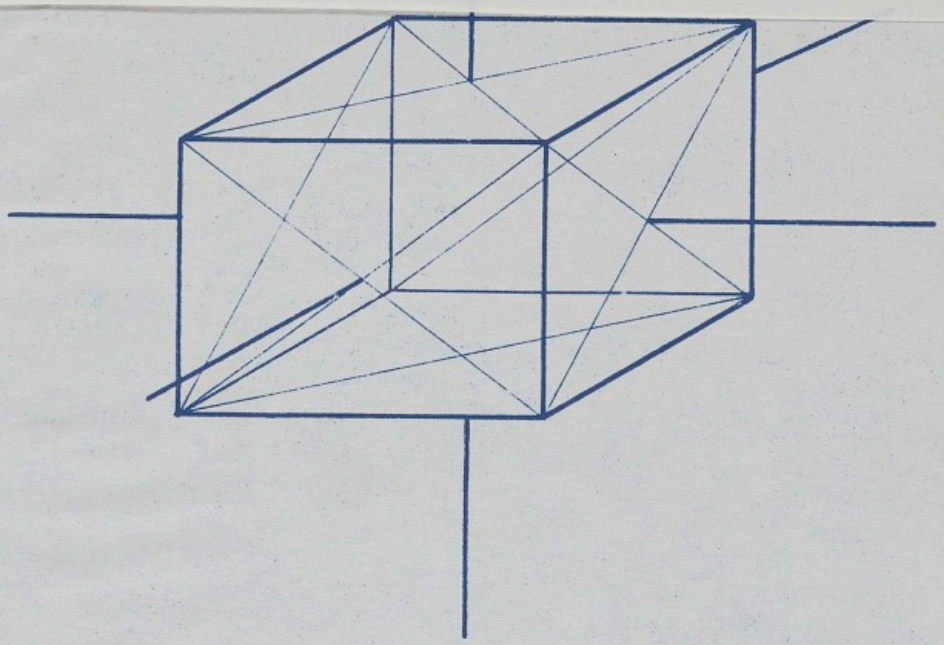
The dynamic axis of volumes

~~88~~
~~86~~
86

~~88~~
~~86~~
86

for Chapter 407.

The volume as mass. The dynamic axes of volume. The gravitation axis is not identical with these axes. (Ex: the volume can be placed on one point, then the gravitation axis goes from that point to the point in the diagonally opposite direction, while the dynamic axis retains its original position relative to the volume.)



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Die wenigen sehr einfachen Drehmöglichkeiten des Volumens um seine dynamischen Achsen.

Parallele Betrachtung
Beschauer links.

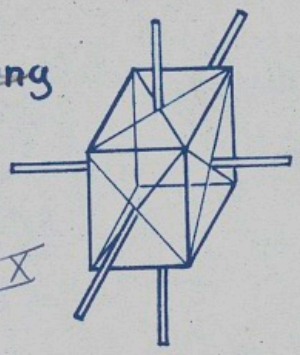


Fig. X

2 Horizontale Achsen
1 Verticale Achse

CHAPTER ~~XX~~ VIII

The few very simple rotation possibilities of volumes.

~~Only~~ Around their dynamic axes.

Parallel observation
Observer left

2 horizontal axes
1 vertical axis

Tipping to one side

Rotation about the
Horizontal axis
Forward or backward

Rotation about the vertical
axis forward or backward

All remaining rotation possibilities are only combinations of the fundamental rotations.

CHAPTER ~~XXI~~ XVIII

The volume in itself as a planar images

The volume as a structure of planes

Fixation of the relations on one volume.

to Chapter XVIII

The volume as a structure of planes

The volume always has many planes, but it may also appear as one plane. The horizontal and the vertical axes of its planes must not be confused with the dynamic axes nor with the gravitation axes of the volume. By comparison of these axes the spacial relations of the planes among themselves may be determined most exactly--not matter if we are dealing with planes on the same volume or with planes situated far apart and on positive or negative volumes, just so we compare only horizontal axes with horizontal axes and verticals only with verticals.

The outlines are directed according to these axes in so far as they are parallel to them. If they are not parallel they are nevertheless subject to the rotation directions of these axes.

The volume as a structure of many planes

(All geometric figures come under this heading)

Relations of planes by comparison of the horizontal axes with one another, and by comparison of the vertical axes with each other is prerequisite for the feeling and perception of surface tensions.

~~88~~
~~89~~
90

CHAPTER ~~XXII~~ XIX

THE POSITION OF THE VOLUME TO THE ~~FACIAL~~ Eye AXIS OF THE OBSERVER

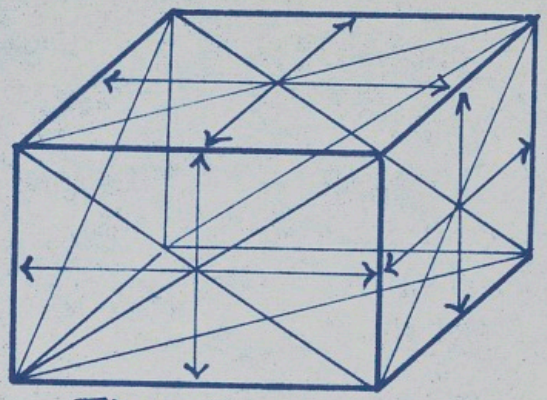
~~93~~
~~90~~
91

to Chapter 4/14.

The ~~visual~~ eye axis

That true seeing, the seeing process proper, is a brain process and not exclusively an eye-activity, is evidenced in that we may rotate or tip the head to all sides. Thus we change the horizontal position of our ~~projected~~ eye-axis without losing our sense of the static relations of things, in contrast to the photographic apparatus, which achieves an oblique picture.

The horizontal axis of our eye is then an imaginary, ~~spiritual~~ mental axis, which is independent of the movement of our head.



Figur I

Fig. XVI

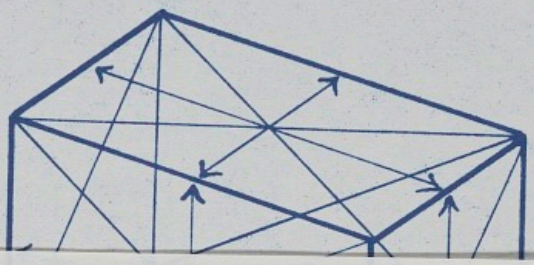


Fig. XVII

Chapter 88

The volume as a planar structure

The position of the volume in parallelity with the eye axis, left from the observer, looking from above in Figure 1.

The volume in diagonal position to the eye axis, right from the observer, looking down, Figure II.

The volume in diagonal position to the eye axis, left to the observer, looking down, Figure III.

The outlines run parallel with the imaginary axis.

~~92~~ 93

rechts vom Beschauer Aufsicht

Right from Observer View from

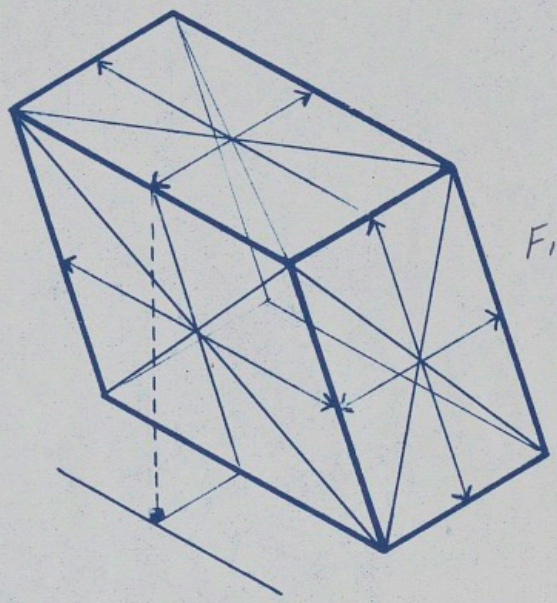


Fig. XIX

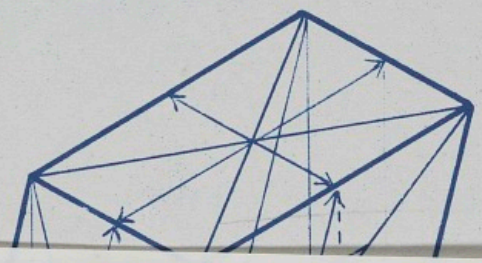


Fig. XX

links vom

~~95~~ 93

Chapter ~~VIII~~.

Shifting masses.

The volume as planar structure.

The volume in diagonal position to the eye axis with tipping to right and left from the observer, looking down.

The outlines run parallel with the imaginary axis of the planes.

~~92~~
~~93~~
94

CHAPTER ~~XXV~~ XXI

Volumes

Shifting masses

~~The movement about a middle point~~

~~Man is, however he moves and stands, the middle point of the world.~~

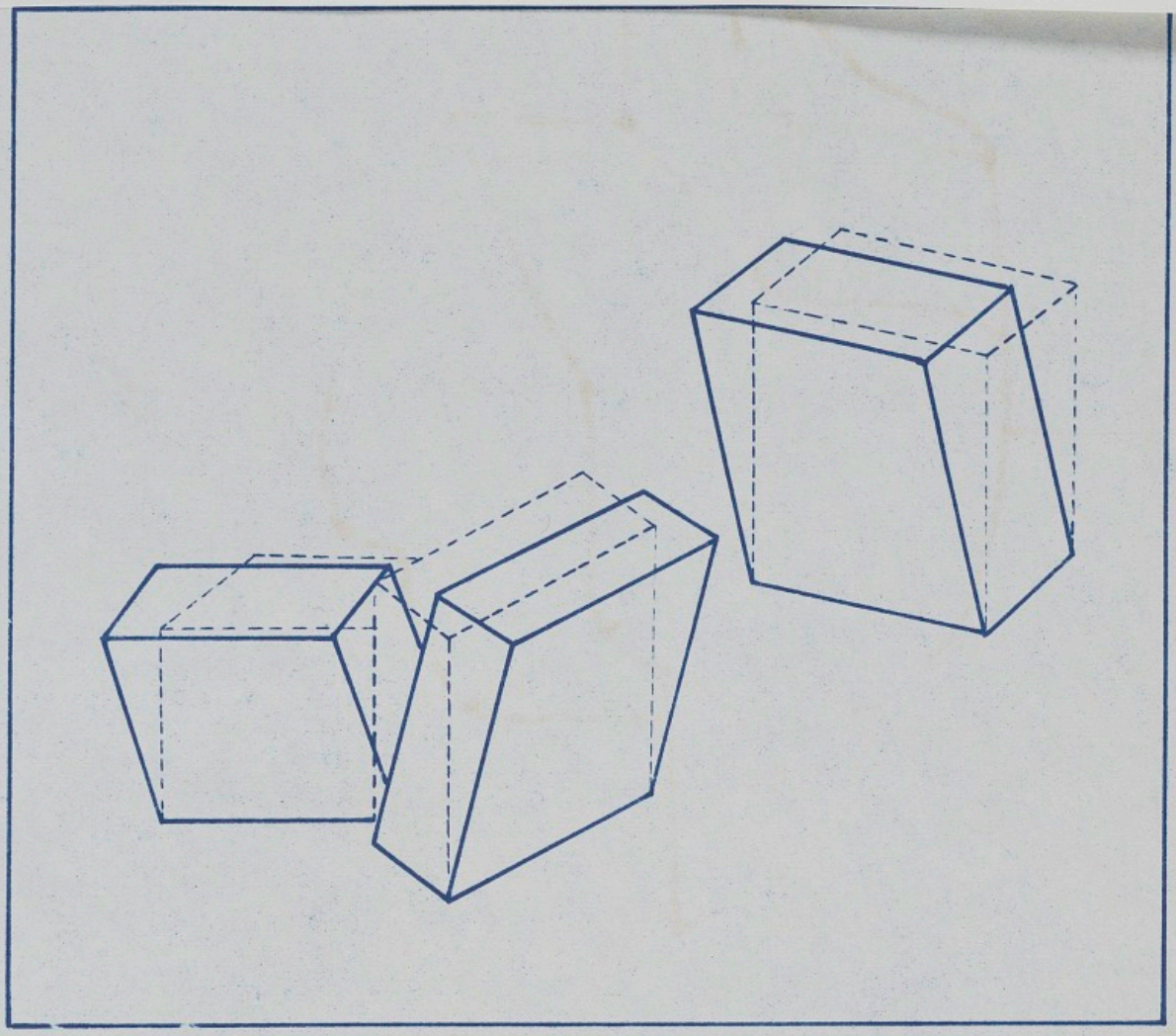
~~90~~
~~94~~
95

to Chapter VIII.

Tipping masses

One observes that the verticals vary only their direction, not their parallelity.

The horizontals absolutely do not vary their direction.



Chap. XXII

The most complicated volume possesses only one imaginary horizontal and one vertical direction axis.

Fig. XXII.

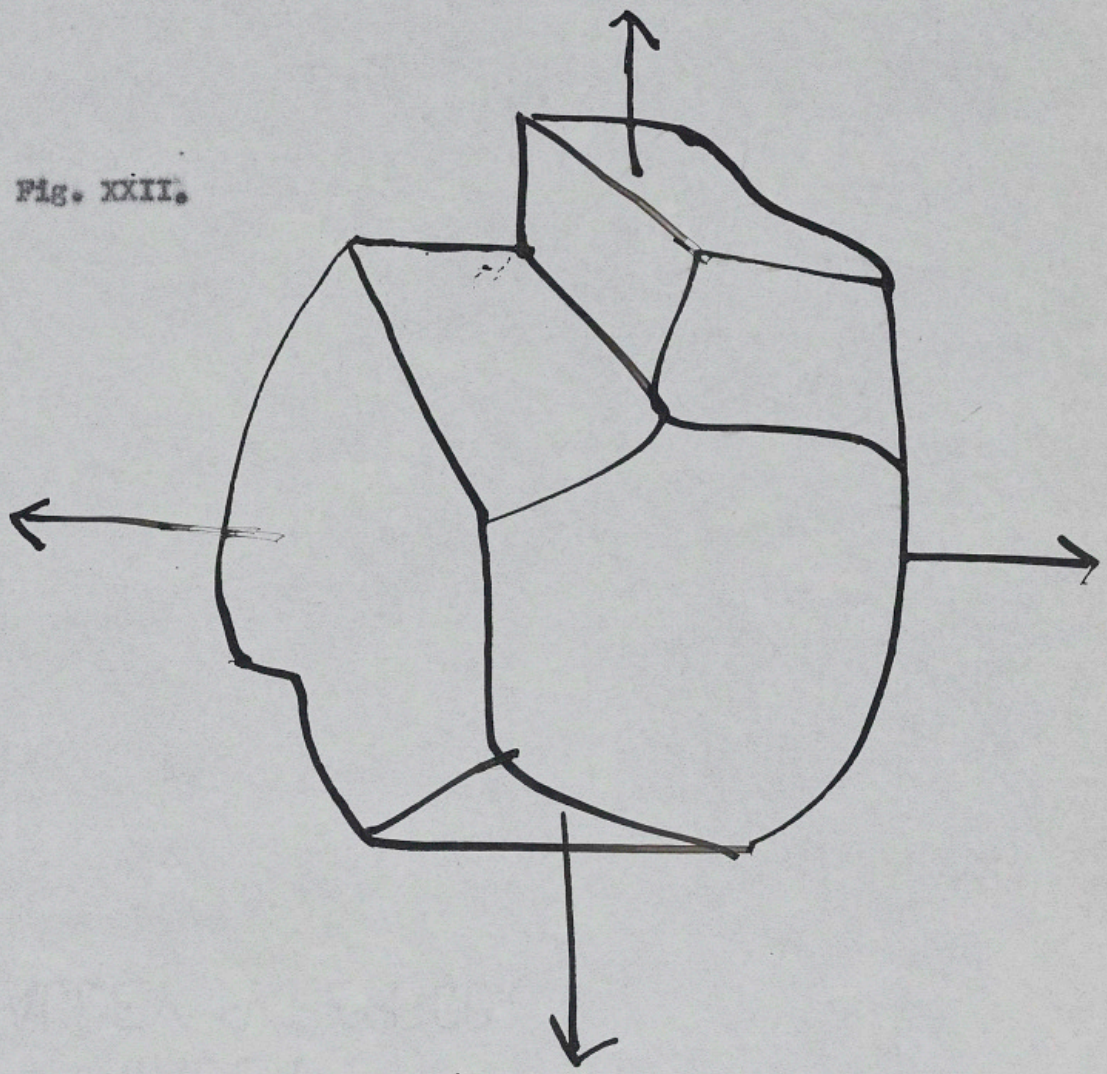


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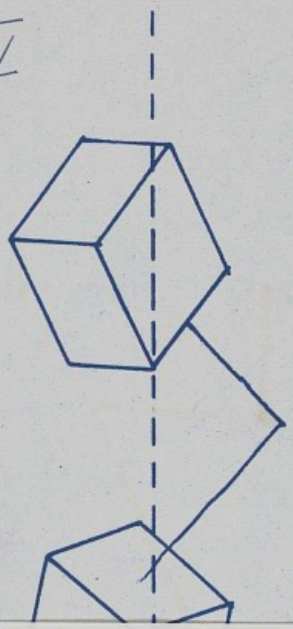
Fig. XXIII



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Chapter ~~34~~ XXIII

The Gravitation Axis

The volume and every dynamic system possesses a gravitation axis. If the gravitation axis is destroyed, the dynamic system collapses.

The dynamic can be effected only upon the basis of the static; the basis of the static and dynamic is gravity.

With the change of the position of the volume the axis of gravity changes.

~~116~~
~~97~~
98

~~97~~
98 ~~116~~
~~96~~

XXIV

Chapter ~~55~~

The rotation of volume about a common rotation axis;
The rotating volume

I. The rotating volume may be seen from all its sides in relation to the axis around which it rotates and it may move through all the possibilities of a given rotation about this axis.

Through the contrast of vision from below and vision from above an illusion of movement is created. The upper part appears to be tipped somewhat backward although the verticals are absolutely perpendicular.

II. Rotation effect with absolute parallels, created by right-sided and left-sided contrast of the volumes.

These very important effects, which are based entirely upon optical illusions would be destroyed throughout if subordinated, for example, to a linear perspective system--or else this effect would have to arise at the expense of the equally important convergence of a multitude of spacially different, interrelated volumes under a straight line (on the right and left side of a system), which convergence only manifests its effect when judged as a whole--specifically through the combined effect of the two factors "right and lefthandedness." If natural plastic experience exists in the presentation of this figure, then only two straight outlines are created.

CHAPTER ~~XXVIII~~ XXV

The volume as a structure of many planes.

The planes belonging to the volume;

Their dependence.

a. from the spacial order of the volume

b. from the rotation of the volume about its dynamic axes.

The organization among themselves about the kernel of the mass fills the masses with life, which comes to effect in the surface tensions of the volumes.

The latent power of the masses may, by comparison of the horizontal axes between themselves, and by comparison of the vertical axes between themselves to the spacial effect of the axes, be felt in the tensions which fill the masses. (This concerns the whole realm of ~~plasticity~~ sculpture.)

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(~~Illustration~~) for Chapter XXV.

Planes which circle about a cube and thus achieve a spherical form.

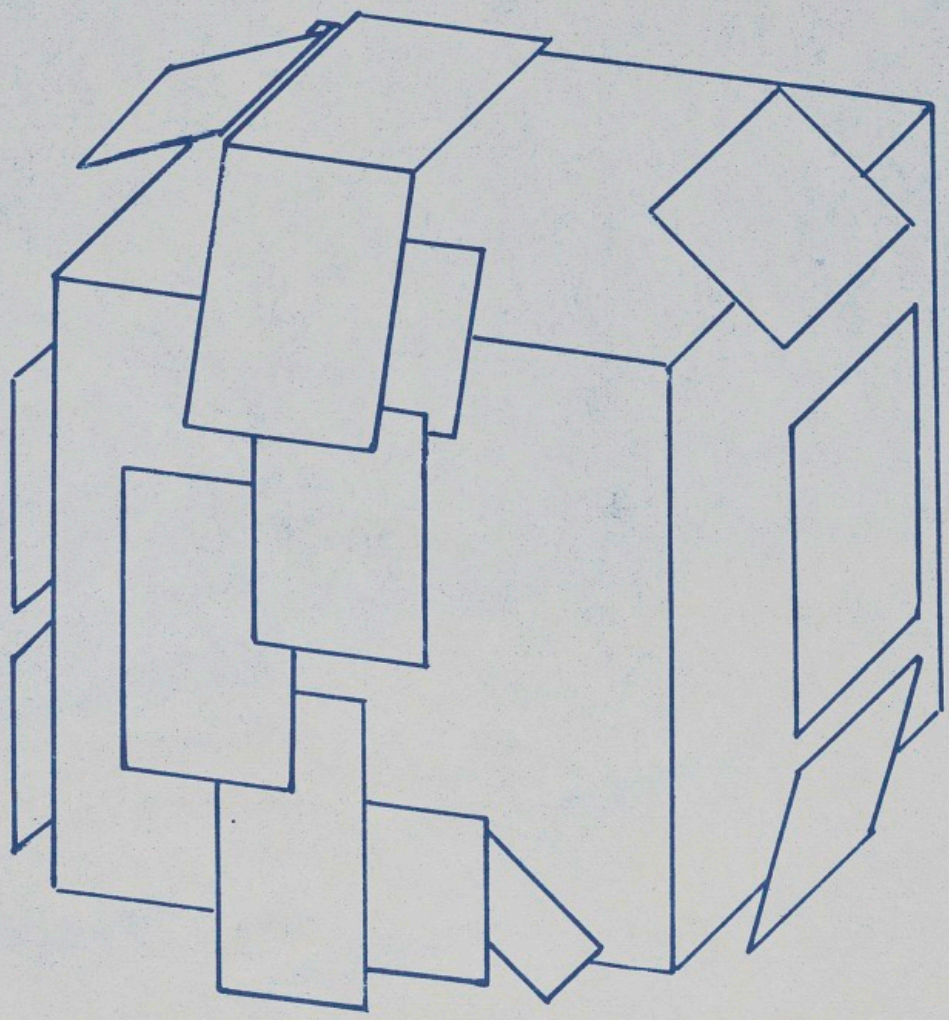


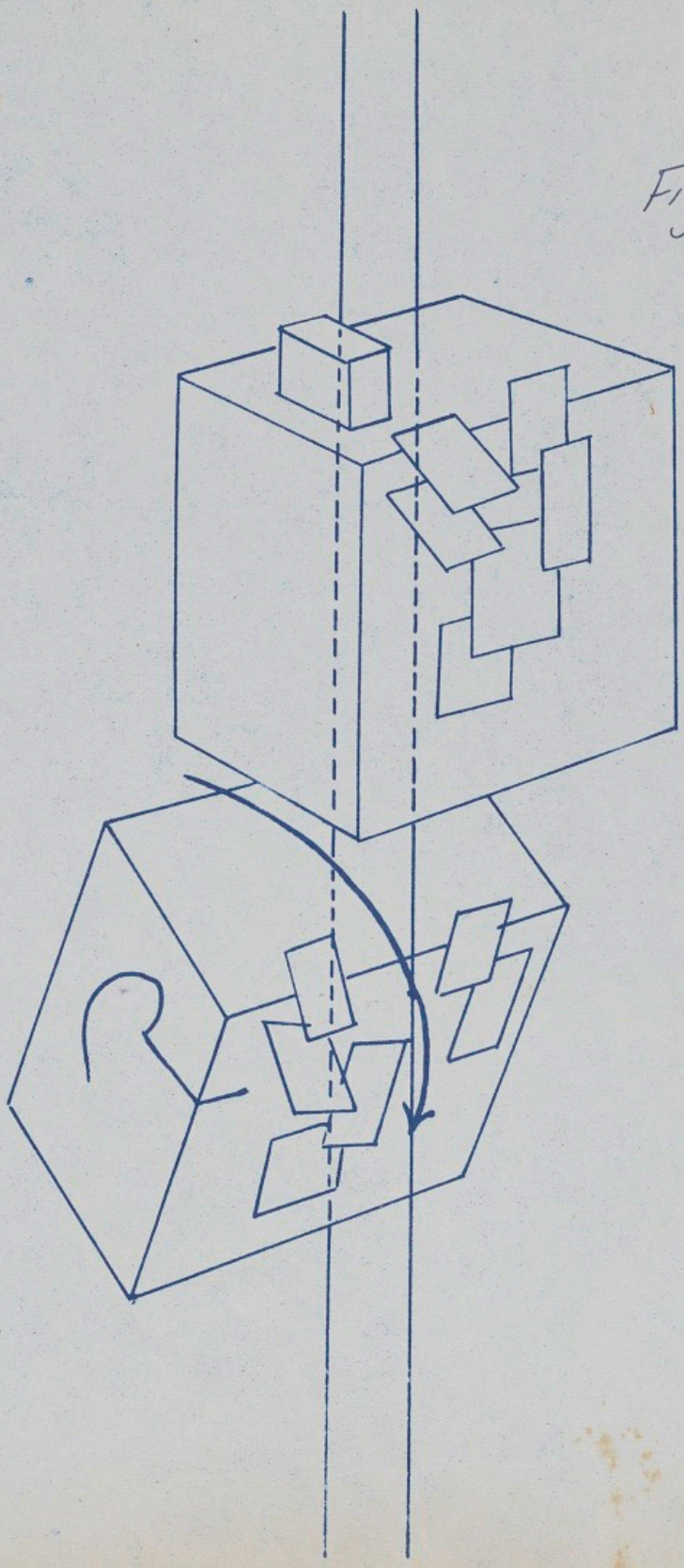
Fig XXV

Chapter XXVI

The Movement of Planes belonging to the volumes dependent chiefly upon the movement of the volumes.

~~107~~ ~~100~~ 709

Fig. XXVI



THE VOLUME IN SPACE

CHAPTER ~~XXVI~~ XXVII

I. Movement of masses back through the planes of space.

II. Movement of masses about a middle point
Man is however he moves or stands the middle point of the world.

Iii. Movement of masses about a common axis:

This leads to the

fundamental differentiation between:

1. Movement on the object and
2. Movement in space and further,

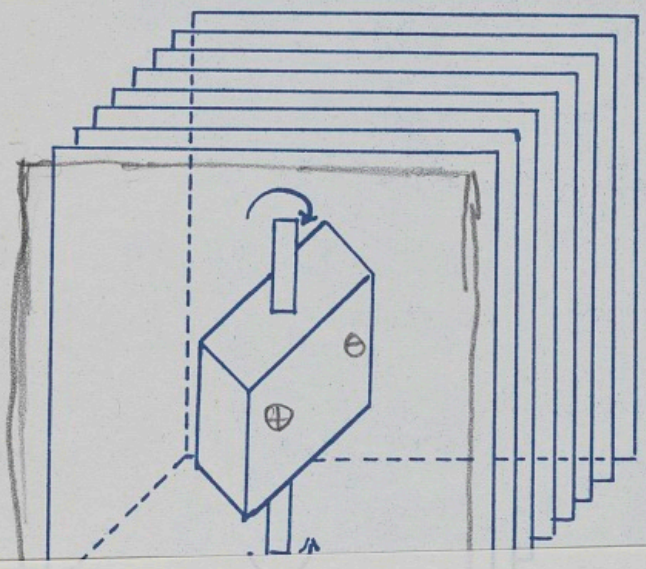
to becoming conscious of the sensation of forward and backward relations in space.

Forward = positive ⊕

Backward = negative ⊖

~~101~~
~~103~~
104

Fig. XXVII



Space Planes

~~101~~
104

to Chapter V, VII.

Movement of volumes back through the planes in space

The mass of a volume moves through many space planes.

Organization of volumes around a central point

Oblique left-facing planes and oblique right-facing planes of the volume may be placed on either the right or left side of the picture center point.

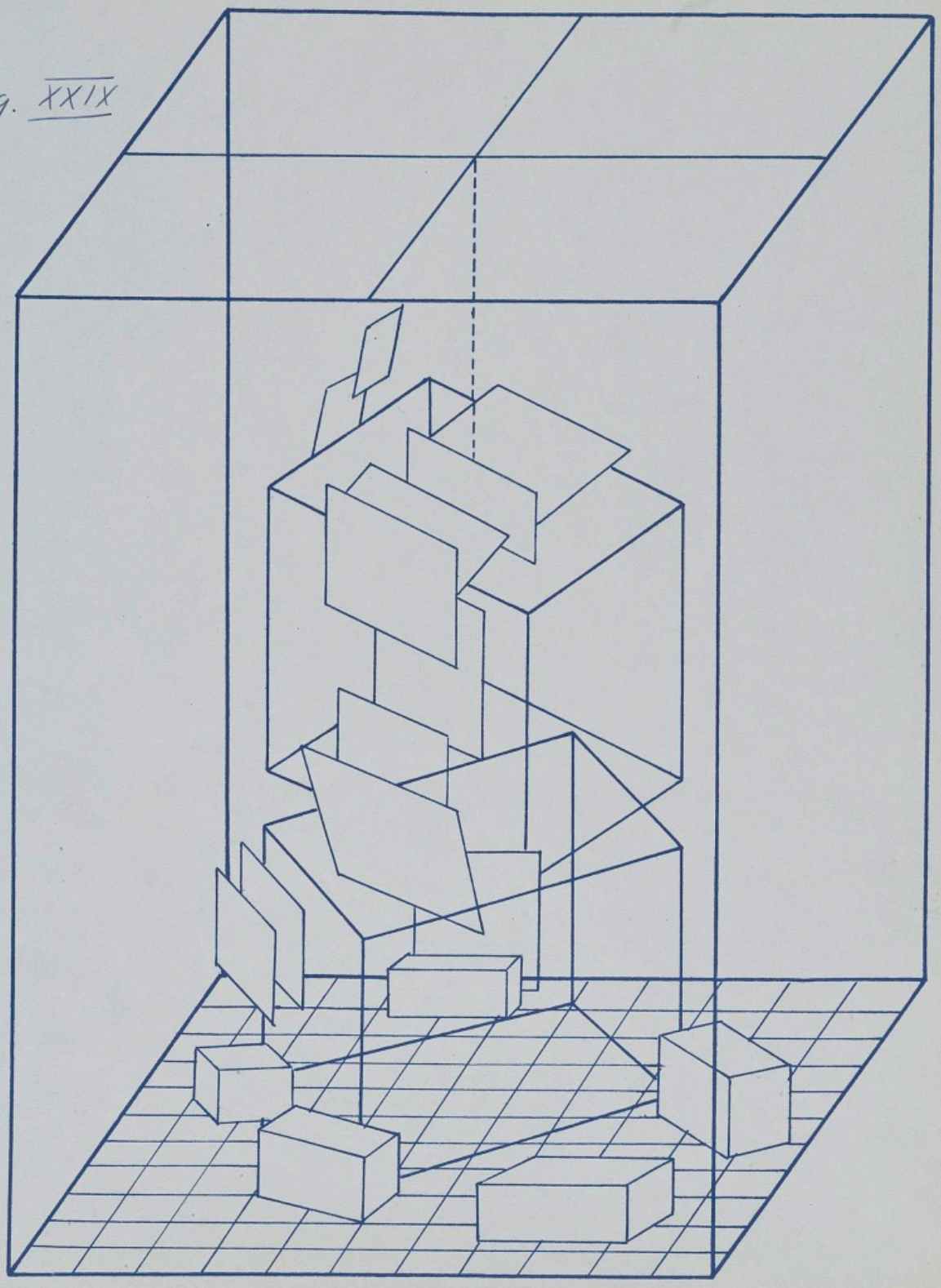
The left or the right side of the volume may stand to the left or right of the central point.

Left

View from beneath.
All remaining volumes are seen from above.

Volumes moving in space with surrounding planes.

Fig. XXIX



~~119~~
~~105~~
706

Chapter ~~56~~ XXIX

The contrasts: "perspective space" and "pictorial space".

The difference between the open space of perspective and pictorial space, which is a closed balance within the borders of the picture plane brought about by the mental relations within the composition.

Pictorial space and mental concept of space are identical.

to Chapter 8818

Our mental conception of space (Imagination)

Conceptual space (imagination) is a closed space, balanced and complete within itself, and not "open space" as perspective creates it.

This means:

The space of our conception possesses a two fold movement.

"going into space"

and "going out of space".

Only thus the movement retains its balance.

Perspective possesses only one movement;

"going" to any arbitrarily chosen vanishing point, which may be upon any arbitrarily conceived horizon line. This vanishing point is even conceived as being completely out of the picture, at times.

~~121~~
~~109~~
708

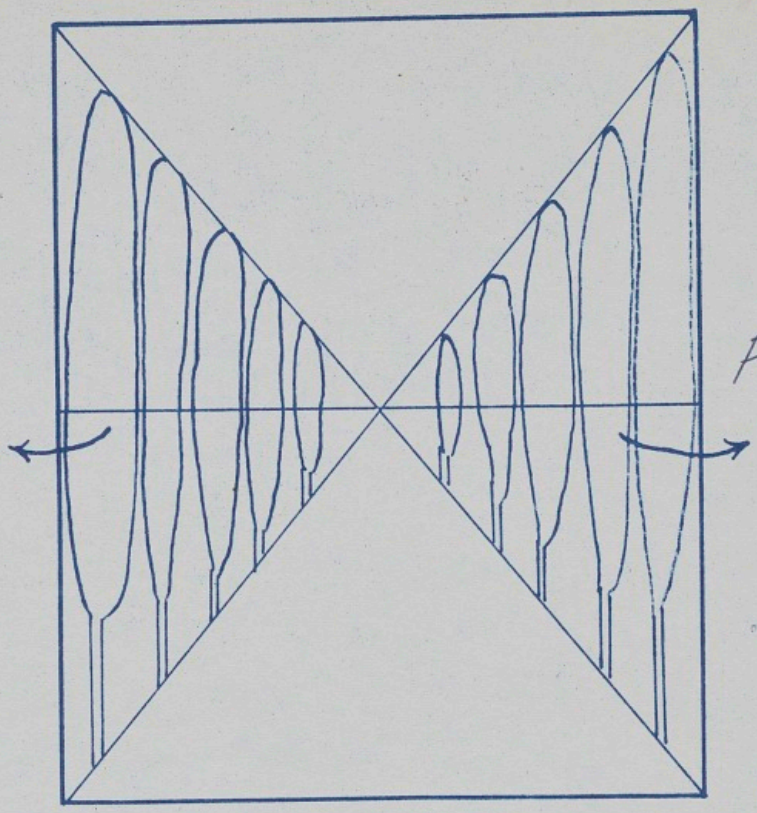


Fig XXX

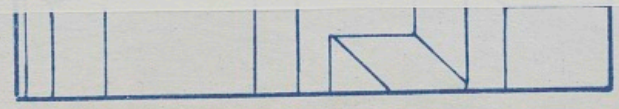
to Chap. XXX

~~121~~
708

Perspective:

Difference between the open space of perspective and the closed space of the composition.

The open space may be extended on the sides of the presentation as far as you please;
whereas, pictorial space is "mentally closed", completed and ful-filled within the borderlines of the picture format.



THE SILHOUETTE

XXX

Chapter ~~31~~

The Spacial Effect of the Silhouette

Die Silhouette ist das Produkt der Massen; der Komplex der Volumen und der Flächenumrisse.
Die Silhouette ist darum räumlich fließend und die verschiedenen Raumpunkte die die Silhouette markiert liegen räumlich getrennt von einander. Die Linienteile der Silhouette, welche immer zwischen zwei räumlich getrennten Raumpunkten verlaufen, schweben darum frei im Raume. Die Linienteile besitzen räumlichen Bezug – der erfühlt werden muß. Es genügt nicht, den Bezug der Linienteile nur entsprechend der Erscheinung zu fixieren. Die Linienteile müssen zudem in ihrem räumlichen Bezuge erfühlt und demzufolge in der Darstellung zum Ausdruck gebracht werden.

~~108~~
~~110~~
~~111~~

CHAPTER ~~XXVII~~ XXXI

The spherical silhouette or the line in the mathematical idea of space.

~~104~~
~~111~~
712

In Chapter 6881.

The line in the mathematical image of space.

We may sum up the mathematical idea of space in a cube. We will consider this cube divided into many planes, which stand vertical to the direction of our view, so we have space planes which we may call by number. The first plane in space will have the number 1 and the last and deepest in space will carry the number, say 100.

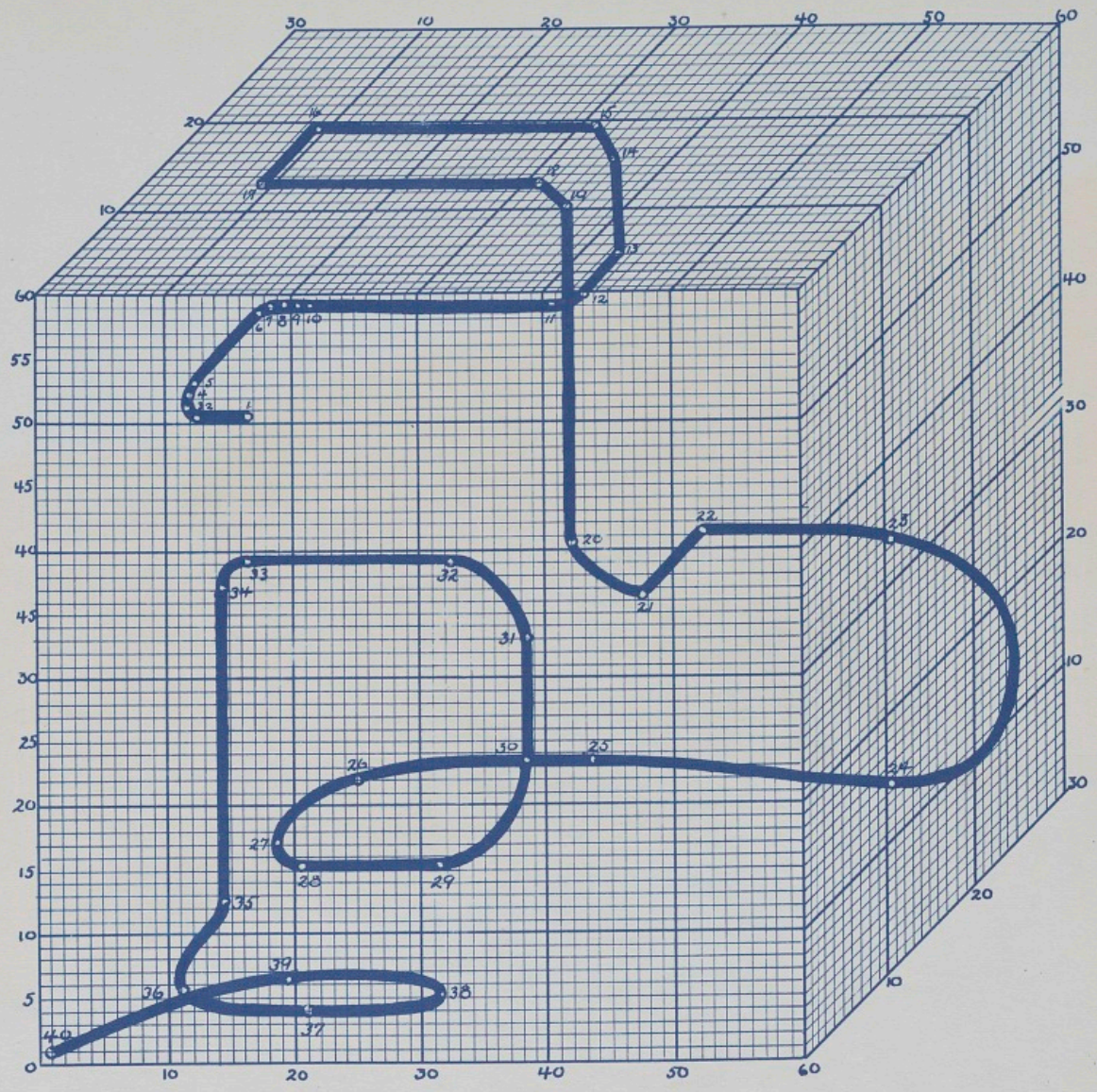
Each single space plane may, however, be further divided by means of vertical and horizontal lines. If we divide each space plane about 100 times, we obtain 100 x 100 section points upon each plane in space and thus 100 x 100 x 100 such points in our whole cube.

We may conceive of each section point as a point in space. Then a line within this space cube will flow through a particular order of numbers, if it has a spacial effect. The line will begin at a certain point and in its flow, cut through particular space planes and go through certain particular points. We obtain in this manner a very exact picture in numerals and thus an image of the coiling effect of line, which every line or silhouette in the pictorial presentation should possess. Naturally, lines in the artistic presentation can not be conceived or dealt with in such a mathematical way, but the scientific example shows the enormous possibilities of the freely moving forms, which does not only concern the line in a fundamental way, but

also the plane and volume and complex. For it is made understandable by this example, that really there can not be two exactly similar free flowing lines in space, for if the lines really flow exactly in the same path they must be covered and so become one line. By means of the intellect the spacial flow of a line, either in nature or in the pictoral presentation, can be ascertained. We must give our selves up to the inner rhythm of the whole, in this way we experience also the rhythmic meaning which the line possesses in its own musical meaning and in relation to the whole.

~~103~~ ~~113~~ 714

Fig. XXXII



No.	T	B	H	No.	T	B	H	No.	T	B	H	No.	T	B	H
1	6	12	46	11	22	25	44	21	22	33	21	31	19	25	20
2	6	8	46	12	23	27	44	22	29	34	21	32	19	19	26
3	8	6	46	13	28	27	44	23	29	47	21	33	19	3	26
4	9	5	46	14	28	27	52	24	29	48	2	34	17	3	23
5	10	5	46	15	28	25	54	25	30	22	2	35	17	3	1
6	18	5	46	16	28	3	54	26	29	4	2	36	7	4	1
7	19	6	46	17	22	7	54	27	22	3	2	37	4	18	1
8	20	7	45	18	22	25	54	28	19	7	2	38	6	28	1
9	22	8	44	19	22	27	52	29	19	18	2	39	8	14	1
10	22	9	44	20	22	27	25	30	19	25	10	40	0	1	1

Chapter VIII.

The spacial effect of the silhouette

As the form has a body which exits in space, so the line circumscribes not only the body, but with the body it also circumscribes the space which the body creates through its spacial effect -- that is, space as negative volume -- if the body arises as positive volume.

The line, therefore, has the meaning of the body as well as the meaning of the surrounding space and in this two fold meaning the relation which the body has to the spacial whole finds expression. Every angular breaking of the line signifies that the form has changed its shape as a plastic body, and that -- necessarily -- the shape of the negative space has changed also. In the silhouette, therefore, the relation of the life-filled form to the oscillating, energy-filled space is to be expressed, and so the silhouette in the pictorial presentation must possess tensions vibrating with energy and further, extension in space.

to Chap. XXXII

~~118~~ ~~115~~ 116

The silhouette binds Volumes together into complexes
The complexes possess a dominant movement
This movement dominates all the volumes which
belong to a given complex.

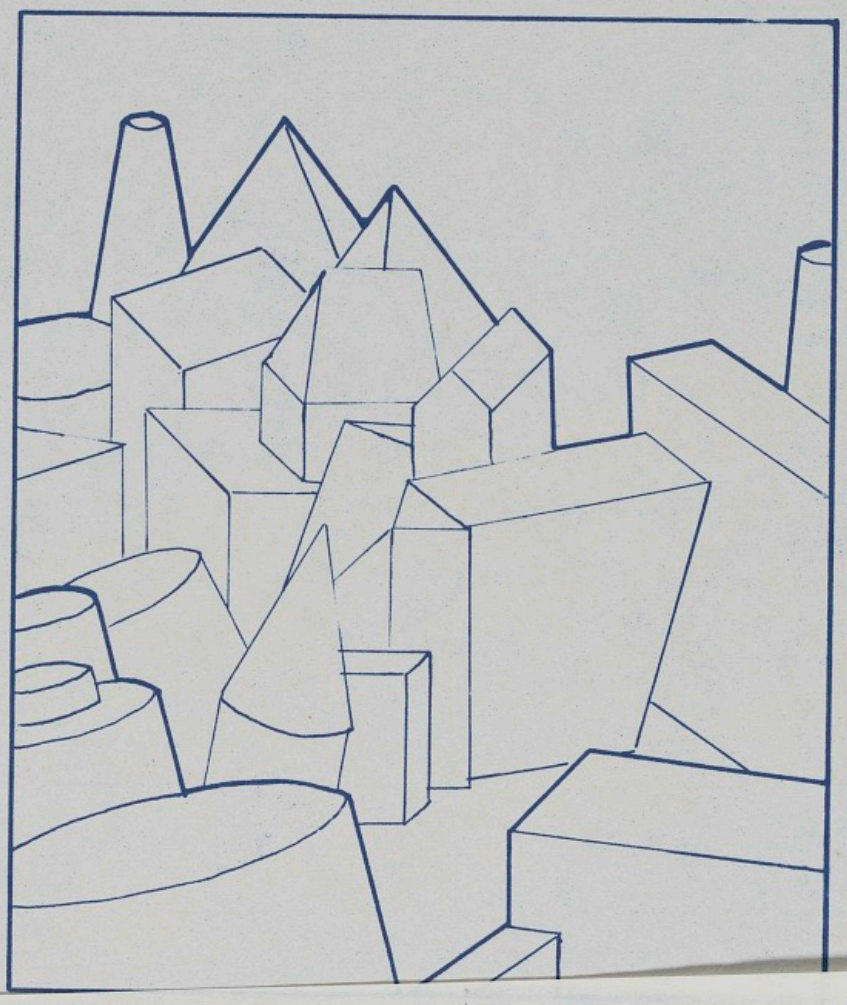


Fig. XXXIII

~~118~~ ~~115~~ 116

to Chapter XXXVI.

The spacial effect of the silhouette

The silhouette must possess a three-dimensional effect.

Dynamic as Expression of:

Energy

Function

Movement

Tension

Rhythm

~~135~~
~~44~~
118

Section III

From the subjective exploration of plastic and visual experience results the conception of:

1 Energy
2 Function
3 Movement
4 Tension
5 Rhythm

1. Movement produces an illusionary contermovement that is felt as tension.

Chapter ~~XXXIII~~ III.

The origin of the Sense of Space.

How the Sense of Space comes about and with it the sense for movement, tension and rhythm. Through the opposition of volume axis and plane axis directions the feeling for movement, tension and space arises in observation of nature or in looking at creative art

137
419
728

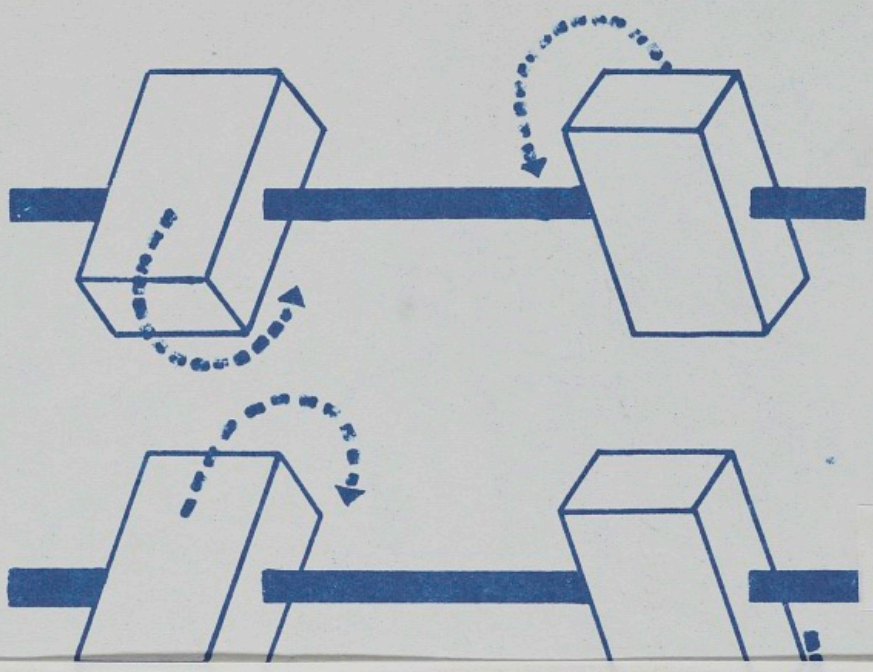
XXXIV

Chapter 3

The impossibility of pictorially presenting a movement with no equivocation as to its actual meaning.

~~138~~
~~120~~
721

Fig. XXXIV



common forward rotation

common rotation back in space

~~120~~
721

In Chapter XXXIV

The impossibility of presenting a movement in the actual sense, without equivocation

The movement of a volume and that of a group of volumes may be interpreted by the intellect very differently as to spacial effect so long as no fixed system of relations obtains (Here demonstrated with the help of a pointer)

The real movement can be expressed in the pictorial presentation no more than can real plastic quality.
On the other hand,
With the two dimensional medium of the picture plane however, an effect of relative movement may be achieved.

121
722

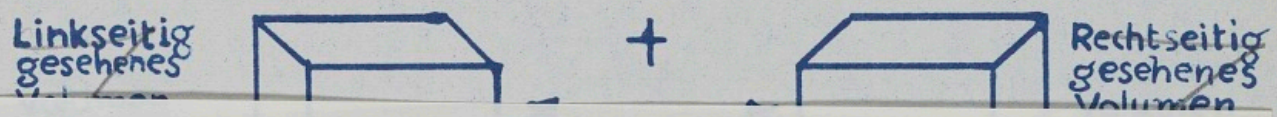
The Origin
of the Movement sensations
in considering Nature
and vice versa
the illusion of Movement
in the Pictorial Presentation

CHAPTER XXXV

How the volume may be looked at in relation to a reference point from the observer's position and the movement sensation resulting in considering Nature or the resulting Movement illusions in the pictorial presentation.

~~123~~ ~~85~~
724 ~~96~~

Fig XXXV



~~97~~
124

to Chapter 8480.

Volume seen from left side — Volume seen from the right--
--left of the relation point — to right of the relation point

Produces a sensation of movement from front to back

Volume seen from right side — Volume seen from left--
--left of the relation point — to right of the relation point

Produces a sensation of movement from back to front

Volume seen from the right — Volume seen from the right--
--left of the relation point — to right of the relation point

Produces a feeling of movement to left

Volume seen from left side — Volume seen from the left--
--left of the relation point — to the right of the relation point

Produces a feeling of movement to right

Looking down — Looking up
View from above — View from beneath

The manner in which volumes are observed

The parallel observation of a relative system
the volume in parallelity with the eye axis of the observer.

~~110~~
~~124~~
125

CHAPTER ~~XXIX~~ XXXVI

The volume interpenetrate each other.

A volume penetrates an other when it belongs to an organism and this organization expresses a function through which it is connected with the organism. In a similar way the organism is connected to the whole.

(1) Movement on the object

(2) Movement in space

(3) The forward and backward in space

That move together upon each other, and that remove the volumes from each other.

plus (positive) and minus (negative) feeling as a medium of orientation. (Tension)

chap. XXXVII

The planes penetrate each other in a function:
and thus anatomy should be learned with regard to
this penetration of masses and in regard to the functions
which come to expression in these penetrations, and
further respecting the rhythmic play which sets up the
function.

The rhythmic play of form is the musical expression of life.

The conception of penetration is be essential premise
for the conception of the so-necessary overlappings,
without which a plastic form is impossible, as were cognize
in Section IV; "The plastic interpretation of the picture
plane,"
Anatomy should not then concern itself exclusively with
muscles and joints, rather the muscles and joints should be
understood with regard to the rhythmic play of forces,
of which they are the carriers, and with regard to the
static and rhythmic working of the masses and further
with regard to the function in which the masses, and thus
the muscles and joints, are bound up further to an organism.
The study of anatomy should serve toward the establishment
of the plastic feeling.

CHAPTER XXXVIII

Movement originates from the opposition of directions (the axes) Movement creates Tensions

TENSION

Tension is the product of Movement and Counter-movement.

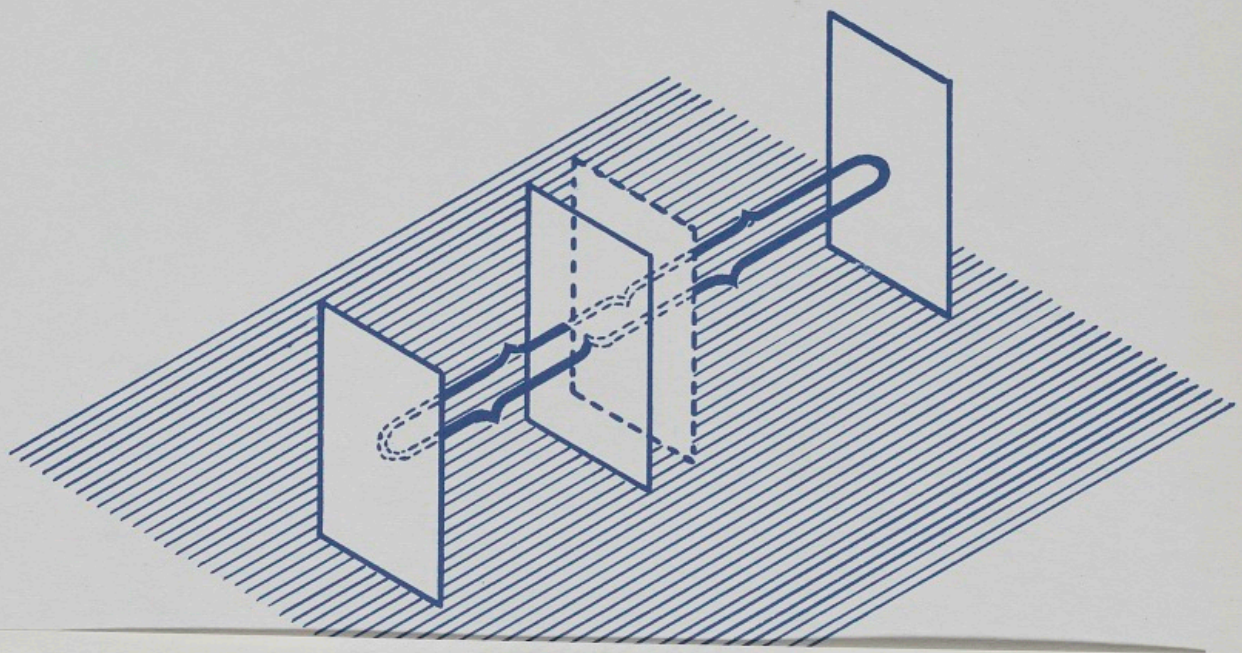
Tension always expresses energy relation.

Chapter ~~32~~ XXXIX

Tension and Movement

The tensile relations are essential premises for the realization of negative volume as space filled with oscillating energy upon one hand and for the realization of positive volume as life-filled form on the other.

Fig. XXXVI



to Chapter XXXIV.

Change of all tensile relations in a plastic unit--spacial system through change of the position to which the planes are subordinated.

The tensile relation between the three planes are originally the same.
If the center plane between A. and B is moved, then the mutual tensile relations change.

APPEARANCE

~~134~~
~~130~~
131

Chapter I

The subjective exploration of the ~~visual~~ plastic and optical experience

The plastic experience leads to the image of actuality
The optic experience leads into the mystery of appearances.
The subjective life relies upon the sensitivity and upon the imaginative and empathic powers of the individual.
(The subjective life presupposes the plastic and optical experience and is, in this way, the basis of formal creation.)

~~128~~
~~127~~
132

Chap. II

~~B~~

~~TECHNICAL PART~~

The optical experience of nature. (Perception)
Reality -- Appearance -- Effect.

Reality comes into appearance differently than it actually is.
The space of our visual process,
the appearance and its three-dimensional interpretation.

The appearance is absolutely parallel to the eye axis, that is however, not that space as a whole must move parallel to the eye axis. Space as a whole may be conceived of as moving parallel or diagonally to the eye axis.

~~123~~
732
153

Chapter III

The Illusion of ~~Perspective~~ Proportion

The Silhouette----The Line.

a) The real proportion (in plastic experience).

b) Proportion in appearance (as an optical appearance).

c) Proportion as effect (in the presentation).

The effect of life size -- the effect of animation.

The Illusion of Proportion -- the Life-size,
"Life-filled" effect.

Appearance

Reality -- Illusion -- Effect

A spacial image, no matter if it is experienced before a natural object, or before a pictorial presentation of a form
is always a matter of inter-related illusions (image)
In other words:
All given measures, by means of their proportions, by means of which they are interrelated, have a

"different"

effect than they have as actual measures of their appearance, --
whether we are concerned with observation of a natural object
or
with their real measures in the mathematical sense --- in a pictorial presentation.

If this were not true, then the life-size effect could not be achieved upon any picture format. And this life size effect should be possessed by every good picture.

735-134
~~125~~

The Illusion of Proportion

I

The actual proportion.

II

The influence of the spacial moment.
The spacial moment influences only the proportion of the appearance.

III

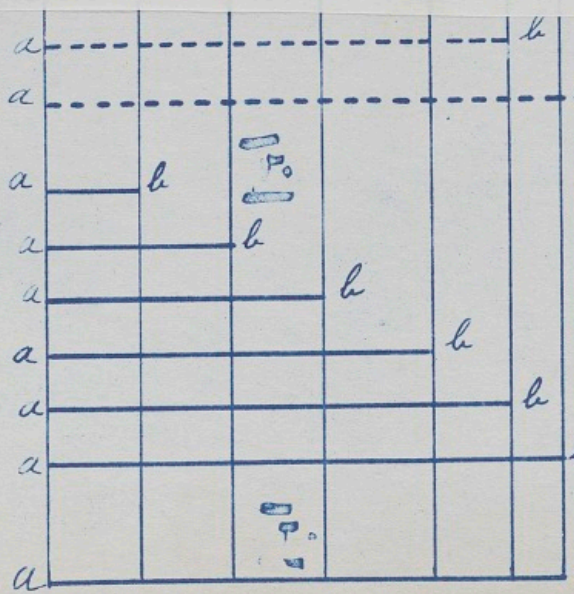
How the proportion is shortened through the addition of the spacial moment.

IV

How the proportion comes to appearance and how it finds its expression in the presentation.

V

The measure-effect of appearance in the presentation, if the shortening is considered as existing spacially.



und wie sie in der Darstellung zum Ausdruck kommt.

Wie die Proportionen in der Erscheinung wirkt und in der Darstellung, wenn ihre Verkürzung räumlich beliebt ist.